

*Pepoon*, as the only Michigan report for this species which is generally considered a member of the coastal plain flora.

HELENium NUDIFLORUM Nutt. Kalamazoo Co.: moist soil southwest of Camp Custer, August 20, 1935, *H. R. Becker*.

CHONDRILLA JUNCEA L. Kalamazoo Co.: sandy soil, Portage Twp., August 8, 1934, *C. R. Hanes*.

LACTUCA SALIGNA L. Washtenaw Co.: dry, sterile bank of Huron River, Shanghai Pit, 3 miles northwest of Ypsilanti, August 4 and 15, 1935, *F. J. Hermann*, nos. 6922 and 6972.

This European weed, although known from Ohio for several decades, seems only lately to be spreading rapidly, as the Indiana, Missouri and California reports are recent and the writer has not succeeded in finding other Michigan records. The flowers in the Washtenaw County colony were deep blue instead of the yellow prevalent in § *Scariola*; but since they were partly wilted when found, this color may have been due to oxidation. Reports by others who have observed the plant in the field are not in agreement upon the flower color.

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## A NOTE ON SPECIES DIFFERENTIATION IN ANTENNARIA

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IN a recent publication (*RHODORA* 38: 231. 1936) Dr. Fernald has ascribed to me the principle that, "we are to distinguish as species the bisexual and parthenogenetic series which show no other appreciable differences." In answer to this contention, I wish to reply that I have never held to this or any similar principle, and that no mention has ever been made of it in any of my publications. Furthermore, two papers now in manuscript or in preparation which discuss bisexual and parthenogenetic races in species of *Crepis* and *Youngia* will demonstrate even more clearly that no such principle is held. In the case of *Antennaria*, which was the subject of Fernald's discussion, I have long been aware that in some species, e.g. *A. Parlinii* and *A. fallax*, both bisexual and parthenogenetic races exist, just as they do in the species of *Crepis* and *Youngia* which are the subject of these forthcoming papers, and it is for this reason that in my discussion of the differences between *A. virginica* and *A. neodioica*



(RHODORA 37: 231-233), no mention was made of this difference. The validity of *A. virginica* was judged chiefly on the basis of the width of the cauline leaves and involucral bracts, the character of the inflorescence, the length of the corollas, the frequent presence of flat scarious tips on the upper cauline leaves in typical *A. virginica*, and the pitting of the receptacle. All of these are characteristics used by Fernald as the major differences between *A. rupicola* and *A. neodioica* (RHODORA 35: 330); between *A. gaspensis* and its relatives and the group of *A. neodioica* (l. c. 329), and in many other cases (cf. Wiegand & Eames, The Flora of the Cayuga Lake Basin. 408-410. 1924). Nevertheless, in his reduction of *A. virginica* to a variety of *A. neodioica*, Fernald makes no discussion of these characteristics, but relies only on the overlapping in the size of the rosette leaves, a character not even mentioned by me as a significant difference between the two species, and the height of the involucre, considered by me (RHODORA 37: 231) as "somewhat smaller" in *A. virginica* than in *A. neodioica*, and hence a character of only secondary importance. Fernald's negation of this character is undoubtedly justified, on account of the errors made by me in my statement of the measurements, although in both cases the figures of wider scope (i.e. 4.5-6.5 mm for *A. virginica* and 5-7 mm for var. *argillicola*) are those based on the final series of specimens examined, and those intended. His statement, however, that, "it is easy to find plants of [*A. neodioica*] var. *attenuata* with involucres 5.5-7 mm high" (l. c.) is surprising in view of the fact that in 1933 he himself characterized the involucres of this species and its relatives as "(6-) 7-10 mm high" (RHODORA 35: 329, under "b" in key), and contrasted with this (l. c. 328, under "b") the involucres of certain Newfoundland species as "if pale, at most 7 mm high." The only other differences used under this heading of the key were those of stature and of leaf size, shape, and tomentum, none of which can be considered of major importance, and in some of which (stature, width of basal leaves, reduction of the terminal mucro on the basal leaves) these Newfoundland species are approached or even equalled by forms of *A. virginica*. When writing my discussion of *A. virginica* and *A. neodioica*, I had this paper of Dr. Fernald's before me, and relied in part on the accuracy of the measurements given in it, since I felt that they had been based on his customary careful examination of a large series of specimens. The involucres of *A. neodioica* less than 7 mm high were found at that time to belong



either to immature or abortive specimens, or to plants judged by me to be var. *typica* rather than var. *attenuata*, and are included (RHODORA 37: 234) in my table under the former variety.

I recognize that there is overlapping between *A. virginica* and *A. neodioica* in some characteristics, but since I am aware of an equal amount of overlapping between *A. fallax* and *A. Parlinii* (particularly in the southern and western portions of their range), *A. neglecta* and *A. petaloidea* (chiefly in Wisconsin), *A. petaloidea* and *A. neodioica* (throughout the north central states), and *A. Parlinii* and *A. Brainerdii* (in central New York) I feel that, in the interests of consistency, the reduction of *A. virginica* to a variety calls for a similar reduction of *A. Parlinii*, *A. petaloidea*, *A. Brainerdii*, and probably other species now recognized in the floras of Eastern North America.

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## NOTES ON VERNONIA

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IN organizing the North American material of the genus *Vernonia* at the Gray Herbarium, the following two changes in rank seem necessary; the first, from a purely taxonomic point of view, and the second from both taxonomic and nomenclatorial considerations.

*VERNONIA SCABERRIMA* Nutt. var. **pulchella** (Small), comb. nov. *V. pulchella* Small, Bull. Torrey Club, xxv. 145 (1898).

In 1898 Small established *Vernonia pulchella* as a species, defining it as related to *V. scaberrima* Nutt. and adding "It is, however, more robust in habit, and has larger serrate leaves which are destitute of the peculiar base characteristic of *Vernonia scaberrima*. The tips of the involucre bracts are more slender and less rigid than those of its relative."

The type specimen, collected by Small "on sand hills bordering the Altamaha River swamps in Liberty county, Georgia, in July 1895," is a plant with leaves varying in character of the base from acute to definitely amplexicaul. Surely this plant, obviously related to *V. scaberrima* Nutt. in all its characters, which presents in its leaf-character a series clearly including the *V. scaberrima* type (sub-amplexicaul base), in large proportion, cannot justifiably be separated as a distinct species.